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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,292	05/10/2001	Alexander Knoll	420/49867	3804

7590 12/11/2002  
CROWELL & MORNING, L.L.P.  
1200 G Street, N.W., Suite 700  
Washington, DC 20005

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 12/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/852,292

Applicant(s)

KNOLL, ALEXANDER

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. A certified copy of a foreign document has been received.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt (USPN 6173220).

Regarding claim 1, Schmitt teaches a flight control display and instrument one of which is an attitude direction indicator (ADI). Schmitt teaches that that ADI indicates a reference point or line such as a representative horizon line relative to the position of the aircraft. Schmitt also teaches that the aircraft may be represented by a fixed element of ADI display depicting the aircraft wings as one or more horizontal marks that are centered with respect to the display screen. See col. 1, lines 10-23 Schmitt teaches a display element (200) including the center of a display to which a pilot's attention is drawn using window areas (214). See col. 5, lines 28-31 and Fig 2. Furthermore, Schmitt teaches a first image portion (206), representing the sky that defined by the area above horizon line (204) that may rotate in response to changes in roll of the aircraft. See col. 4, lines 39-44, 66-67 and col. 5, lines 1-10. However, Schmitt does not specifically mention "an aircraft symbol with a center to depict a longitudinal axis and a lateral line to depict a current attitude of the aircraft". Schmitt also does not specifically disclose destination position symbol, its location, and alignment with "reference line" as well as

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“skyline”. On the other hand, Schmitt teaches a detection element (106) configured to determine the position/attitude of the aircraft including the pitch of the aircraft relative to a reference (e.g. horizon), and the roll of the aircraft relative to its longitudinal axis, Schmitt further indicates the use of a processor (102) which may be configured in a desired fashion to receive and process target and/or bearing data (108) to an intended destination of the aircraft. Schmitt indicates that the data (108) could be specific landing coordinates, a runway etc. See col. 3, lines 49-67, col. 4, lines 1-11 and Fig 1.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize Schmitt’s detection element (106) and processor (102) for the purpose of position determination with respect to one or more locations, points, planes and targets. One would have been motivated in view of Schmitt that the detection element (106) and the processor (102) equivalently and respectively provide ‘aircraft symbol’ as configured with a center and lateral lines and ‘destination position symbol’ as configured with reference and sky lines. The use of the detection element (106) and the processor (102) helps function attitude direction indicator (ADI) display for aircraft as taught by Schmitt.

Regarding claims 2-3, Schmitt teaches directional markers (402) which identify toward a suitable reference altitude. See col. 7, Lines 5-8.

Regarding claim 4-7, Schmitt teaches a processor (102) which process data (108) related to destination position, coordinates and other destination-related details. Col. 4, lines 1-11.

Regarding claims 8-10, Schmitt teaches the use of a variety flight control displays including head up display (HUD), and Liquid crystal display. See col. 1, lines 10-14 and col. 2, lines 61-67.

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### **Conclusion**

3. The prior art made of record and not relied upon is considered to applicant's disclosure.

The following arts are cited for further reference.

U.S. Pat, No. 5,343,395 to Watts

U.S. Pat. No. 5,388,990 to Beckman

U.S. Pat. No. 5,745,073 to Tomita

U.S. Pat. No. 6,150,960 Voulgaris

U.S. Pat. NO. 6,389,333 Hansman

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4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

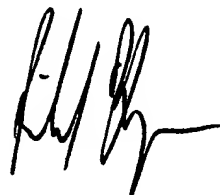
Hand delivered responses should be brought to Crystal park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abduselam

Examiner

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**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**